

CONTENTS

(Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database available on STN International; Abstracted, indexed in: Aluminium Abstracts; Anal. Abstr.; Biol. Abstr.; BIOSIS; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Engineered Materials Abstracts; Excerpta Medica; Index Med.; Life Sci.; Mass Spectrum. Bull.; Material Business Alerts; Metals Abstracts; Sci. Citation Index)

Electrochemiluminescence

- Screen-printed electrode microarray for electrochemiluminescent measurements
B.P. Corgier, C.A. Marquette and L.J. Blum (Villeurbanne, France) 1

Molecularly imprinted polymers

- Non-covalent imprinting of phosphorous esters
A.J. Hall, F. Lanza-Sellergren, P. Manesiotis and B. Sellergren (Dortmund, Germany) 9

Enantiomeric separations

- Enantiomeric separation of cyclopropane derivatives on a polysaccharide-based chiral stationary phase
A. Ghanem, H. Hoenen (Riyadh, Saudi Arabia), P. Müller (Geneva, Switzerland) and H.Y. Aboul-Enein (Riyadh, Saudi Arabia) 15
- Stereoselective determination of the major ibuprofen metabolites in human urine by off-line coupling solid-phase microextraction and high-performance liquid chromatography
A.R.M. de Oliveira, F.J.M. de Santana and P.S. Bonato (São Paulo, Brazil) 25

Preconcentration and purification

- On-line solid-phase extraction and HPLC determination of polycyclic aromatic hydrocarbons in water using fluorocarbon polymer sorbents
L. Oliferova, M. Statkus, G. Tsysin, O. Shpigun and Y. Zolotov (Moscow, Russia) 35
- Development of a headspace solid-phase microextraction method combined with gas chromatography mass spectrometry for the determination of phthalate esters in cow milk
Y.-L. Feng, J. Zhu and R. Sensenstein (Ottawa, Canada) 41
- Solid phase microextraction with liquid chromatography–electrospray ionization–tandem mass spectrometry for analysis of amphetamine and methamphetamine in serum
C.-C. Chou and M.-R. Lee (Taichung, Taiwan) 49
- Development of a new clean-up tandem assay column for the detection of ochratoxin A in roasted coffee
M. Lobeau, S. De Saeger (Ghent, Belgium), L. Sibanda (Maldegem, Belgium), I. Barna-Vetró (Gödöllő, Hungary) and C. Van Peteghem (Ghent, Belgium) 57
- Determination of phenolic compounds in wastewater samples using a novel fiber by solid-phase microextraction coupled to gas chromatography
F. Zhou, X. Li and Z. Zeng (Wuhan, China) 63
- Determination of carotene, tocopherols and tocotrienols in residue oil from palm pressed fiber using pressurized liquid extraction–normal phase liquid chromatography
M.M. Sanagi, H.H. See, W.A.W. Ibrahim and A.A. Naim (Johor, Malaysia) 71
- Determination of triamterene in pharmaceutical formulations and of triamterene and its main metabolite hydroxytriamterene sulfate in urine using solid-phase and aqueous solution luminescence
G.A. Ibañez, G.M. Escandar (Rosario, Argentina), A.E. Mansilla and A.M. de la Peña (Badajoz, Spain) 77
- Highly selective determination of inorganic mercury(II) after preconcentration with Hg(II)-imprinted diazoaminobenzene–vinylpyridine copolymers
Y. Liu (Lanzhou, China and Datong, China), X. Chang, D. Yang (Lanzhou, China), Y. Guo and S. Meng (Datong, China) 85
- Fractionation of arsenic in soil and sludge samples: continuous-flow extraction using rotating coiled columns versus batch sequential extraction
P.S. Fedotov (Moscow, Russia), W.J. Fitz (Vienna, Austria), R. Wennrich, P. Morgenstern (Permoserstrasse, Germany) and W.W. Wenzel (Vienna, Austria) 93
- Qualitative and quantitative speciation analysis of water soluble selenium in three edible wild mushrooms species by liquid chromatography using post-column isotope dilution ICP–MS
V.D. Huerta, M.L.F. Sánchez and A. Sanz-Medel (Oviedo, Spain) 99

Liquid chromatography

- Determination of vanadium species in sediment, mussel and fish muscle tissue samples by liquid chromatography–inductively coupled plasma–mass spectrometry
M. Colina (Zulia, Venezuela), P.H.E. Gardiner (Sheffield, UK), Z. Rivas and F. Troncone (Plaza de las Banderas, Venezuela) 107

Monitoring of pesticides in agricultural water and soil samples from Andalusia by liquid chromatography coupled to mass spectrometry A. Belmonte Vega, A. Garrido Frenich and J.L. Martínez Vidal (Almería, Spain)	117
Simultaneous analysis of <i>N</i> -nornuciferine, <i>O</i> -nornuciferine, nuciferine, and roemerine in leaves of <i>Nelumbo nucifera</i> Gaertn by high-performance liquid chromatography–photodiode array detection–electrospray mass spectrometry X. Luo, B. Chen, J. Liu and S. Yao (Changsha, PR China)	129
Liquid chromatographic determination with fluorescence detection of B ₆ vitamins and riboflavin in milk and pharmaceuticals R. Gatti and M.G. Gioia (Bologna, Italy)	135
Fluorimetry	
Determination of glycine, glutamine, glutamate, and γ -aminobutyric acid in cerebrospinal fluids by capillary electrophoresis with light-emitting diode-induced fluorescence detection M.-J. Lu, T.-C. Chiu, P.-L. Chang, H.-T. Ho and H.-T. Chang (Taipei, Taiwan)	143
A surfactant enhanced stopped-flow kinetic fluorimetric method for the determination of trace DNA R.-Y. Wang, X. Gao and Y.-T. Lu (Wuhan, China)	151
Immunoassay	
Femtomolar immunoassay based on coupling gold nanoparticle enlargement with square wave stripping voltammetry K.-T. Liao and H.-J. Huang (Kaohsiung, Taiwan)	159
Electron paramagnetic resonance spectrometry	
Analysis of the longitudinal, "sloping plateau" effect of a planar sample in a single TE ₁₀₂ rectangular electron paramagnetic resonance cavity M. Mazur, J. Moncol, M. Valko (Bratislava, Slovakia) and H. Morris (Liverpool, UK)	165
Raman spectroscopy	
Analytical Raman spectroscopic study of cacao seeds and their chemical extracts H.G. M. Edwards (Bradford, UK), S.E.J. Villar (Calle Villadiego, Spain), L.F.C. de Oliveira and M.L. Hyaric (Juiz de Fora, Brazil)	175
Infrared spectrometry	
Determination of the energetic value of fruit and milk-based beverages through partial-least-squares attenuated total reflectance-Fourier transform infrared spectrometry J. Moros (Burjassot, Spain), F.A. Iñón (Buenos Aires, Argentina), S. Garrigues and M. de la Guardia (Burjassot, Spain)	181
Analysis of caffeine, theobromine and theophylline in coffee by near infrared spectroscopy (NIRS) compared to high-performance liquid chromatography (HPLC) coupled to mass spectrometry C.W. Huck, W. Guggenbichler and G.K. Bonn (Innsbruck, Austria)	195
Sensors	
A disposable immunomagnetic electrochemical sensor based on functionalised magnetic beads and carbon-based screen-printed electrodes (SPCEs) for the detection of polychlorinated biphenyls (PCBs) S. Centi, S. Laschi (Firenze, Italy), M. Fránek (Brno, Czech Republic) and M. Mascini (Firenze, Italy)	205
Anion recognition through modified calixarenes: a highly selective sensor for monohydrogen phosphate V.K. Gupta (Uttaranchal, India), R. Ludwig (Berlin, Germany) and S. Agarwal (Uttaranchal, India)	213
Electrodes modified with an electrosynthesised Ni/Al hydrotalcite as amperometric sensors in flow systems B. Ballarín, M. Berrettoni, I. Carpani, E. Scavetta and D. Tonelli (Bologna, Italy)	219
Characterization of an optical copper sensor based on <i>N,N'</i> -bis(salicylidene)-1,2-phenylenediamine M.B. Gholivand, P. Niroomandi (Kermanshah, Iran), A. Yari (Khorramabad, Iran) and M. Joshagani (Kermanshah, Iran)	225
Development of a radiochemical sensor. Part 1: Feasibility study A. Tarancón, J.F. García and G. Rauret (Barcelona, Spain)	233
Development of a radiochemical sensor, Part 2: Application to liquid effluents A. Tarancón, A. Padró, J.F. García and G. Rauret (Barcelona, Spain)	241
Electroanalytical chemistry	
Strip bioelectrochemical cell for potentiometric measurements fabricated by screen-printing L. Tymecki, E. Zwierkowska and R. Koncki (Warsaw, Poland)	251
Potentiometric assay for acid and alkaline phosphatase R. Koncki, D. Ogorczyk and S. Głąb (Warsaw, Poland)	257
An analysis of distinguishing composite dissolved metal–ligand systems measurable by stripping voltammetry C. Garnier (La Garde, France), I. Pižeta (Zagreb, Croatia), S. Mounier (La Garde, France), V. Cuculić (Zagreb, Croatia) and J.Y. Benaïm (La Garde, France)	263
An electrochemical approach for detecting copper-chelating properties of flavonoids using disposable pencil graphite electrodes: Possible implications in copper-mediated illnesses M. Vestergaard, K. Kerman and E. Tamiya (Ishikawa, Japan)	273
Rapid and quantitative electrolytic preparation and speciation of neptunium ions of various oxidation states using multi-step column electrodes H. Aoyagi, Y. Kitatsuji, Z. Yoshida (Ibaraki, Japan) and S. Kihara (Kyoto, Japan)	283
X-ray diffraction and fluorescence	
Phase quantification of two chlorothalonil polymorphs by X-ray powder diffraction Q.-i. Lu (Jinan, China), G. Yang and H. Gu (Jiangsu, China)	291
Calculation of the contributions of scattering effects to the X-ray fluorescent intensities for light matrix samples X. Han (Shanghai, PR China and Beijing, PR China), S. Zhuo, P. Wang, G. Tao and A. Ji (Shanghai, PR China)	297

Atomic absorption spectrometry

- Multi-element electrothermal AAS determination of 11 marker elements in fine ambient aerosol slurry samples collected with SEAS-II
J.P. Pancras, J.M. Ondov (College Park, MD, USA) and R. Zeisler (Gaithersburg, MD, USA) 303
- An analytical study of bioaccumulation and the binding forms of mercury in rat body using thermolysis coupled with atomic absorption spectrometry
R.-J. Huang, Z.-X. Zhuang, Y.-R. Wang, Z.-Y. Huang, (Xiamen, China) X.-R. Wang (Xiamen, China and Qingdao, China) and F.S.C. Lee (Qingdao, China) 313

Sample preparation

- Online flow digestion of biological and environmental samples for inductively coupled plasma-optical emission spectroscopy (ICP-OES)
Q.Z. Bian, P. Jacob, H. Berndt and K. Niemax (Dortmund, Germany) 323

UV-visible spectrophotometry and light scattering

- Flow injection-spectrophotometric determination of some catecholamine drugs in pharmaceutical preparations via oxidative coupling reaction with *p*-toluidine and sodium periodate
L.K. Abdulrahman, A.M. Al-Abachi and M.H. Al-Qaissy (Baghdad, Iraq) 331
- Adsorption of penicillin-berberine ion associates at a water/tetrachloromethane interface and determination of penicillin based on total internal-reflected resonance light scattering measurements
C.Z. Huang, P. Feng, Y.F. Li, K.J. Tan and H.Y. Wang (Chongqing, PR China) 337

Chemometrics

- Estimation of antitubercular drugs combination in pharmaceutical formulations using multivariate calibration
J. Madan, A.K. Dwivedi and S. Singh (Lucknow, India) 345
- Water quality assessment and apportionment of pollution sources of Gomti river (India) using multivariate statistical techniques—a case study
K.P. Singh, A. Malik and S. Sinha (Lucknow, India) 355
- An exact test for analytical bias detection
M. de Castro, H. Bolfarine (São Paulo, Brazil), M. Galea-Rojas (Valparaíso, Chile) and M.V. de Castilho (Santa Luzia, Brazil) 375
- Resolution of overlapping spectra by curve-fitting
Y. Hu (Wuhan, China), J. Liu (Albuquerque, NM, USA) and W. Li (Wuhan, China) 383

Antioxidant activity

- Comparison of antioxidant activity of wine phenolic compounds and metabolites in vitro
D. Villaño, M.S. Fernández-Pachón, A.M. Troncoso and M.C. García-Parrilla (Sevilla, Spain) 391

Forensic science

- Distribution of the principal cannabinoids within bars of compressed cannabis resin
R. Lewis (Edinburgh, UK), S. Ward, R. Johnson (Glasgow, UK) and D.T. Burns (Belfast, UK) 399

Author Index

407

Calendar of forthcoming meetings

N1

CONTENTS
Direct

This journal is part of **ContentsDirect**, the *free* alerting service which sends tables of contents by e-mail for Elsevier books and journals. You can register for **ContentsDirect** online at: <http://contentsdirect.elsevier.com>



Full text of this journal is available, on-line from **ScienceDirect**. Visit www.sciencedirect.com for more information.